

CLAIMS

I claim:

1. A monitoring method for a wireless communications network, the monitoring method comprising, in combination:

operating a first mobile station function to establish diagnostic data concerning operation of a wireless network;

5 operating a location-determining mechanism to establish location data corresponding to the diagnostic data; and

operating a second mobile station to communicate the diagnostic data and location data to a remote entity via a communication path comprising an air interface.

2. A monitoring method for a wireless communications network, the monitoring method comprising, in combination:

communicating from a first mobile station to a computer a set of diagnostic data concerning operation of a wireless network;

5 communicating the diagnostic data from the computer to a second mobile station; and

communicating the diagnostic data from the mobile station to a remote entity, via a communication path comprising an air interface.

3. The monitoring method of claim 2, further comprising, in combination:

communicating reporting-logic to the second mobile station via a communication path comprising an air interface; and

communicating the reporting-logic from the second mobile station to the computer.

4. The monitoring method of claim 3, wherein the remote entity communicates the reporting-logic to the second mobile station.

5. The monitoring method of claim 2, further comprising:

receiving into the computer location data indicative of a location of the first mobile station corresponding to the diagnostic data;

communicating the location data from the computer to the second mobile station; and

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communicating the location data from the second mobile station to the remote entity via the communication path, thereby indicating to the remote entity the location of the first mobile station corresponding to the diagnostic data.

6. The monitoring method of claim 5, wherein the diagnostic data and location data are communicated together to the remote entity.

7. The monitoring method of claim 6, wherein communicating the diagnostic data and location data comprises sending the diagnostic data and location data via FTP to the remote entity.

8. The monitoring method of claim 5, wherein receiving location data comprises receiving the location data from a GPS transceiver.

9. The monitoring method of claim 5, wherein the diagnostic data comprises radio frequency parameters.

10. The monitoring method of claim 7, wherein the air interface is G3-compliant.

11. The monitoring method of claim 5, further comprising, upon receipt of the diagnostic data and location data at the remote entity:

analyzing the diagnostic data;

determining that at least a portion of the diagnostic data meets a threshold; and
responsively providing an alert message.

12. The monitoring method of claim 5, further comprising, after receipt of the diagnostic data and location data at the remote entity:

providing an output report indicative of at least the diagnostic data.

13. The monitoring method of claim 5, further comprising:

mounting a combination of the first mobile station, the second mobile station and the computer on a vehicle;

driving the vehicle around a geographic area; and

repeating the method steps of claim 5 at a plurality of locations throughout the
geographic area.

whereby diagnostic data corresponding to the plurality of locations is reported to the remote entity.

14. The monitoring method of claim 13, further comprising entering into an agreement with an owner or operator of the vehicle, establishing that the vehicle will carry the combination around the geographic area.

15. A mobile diagnostic reporting system comprising, in combination:

- a first mobile station function;
- a location-determining function; and
- a second mobile station function,

wherein the first mobile station function outputs diagnostic data concerning wireless network conditions, the location-determining function outputs location data corresponding to the diagnostic data, and the second mobile station communicates the diagnostic data and the location data to a remote entity via a communication path comprising an air interface.

16. A mobile diagnostic reporting system comprising, in combination:

- a first mobile station;
- a computer communicatively coupled with the first mobile station; and
- a second mobile station communicatively coupled with the computer,

5 wherein the first mobile station provides diagnostic data to the computer, the computer provides the diagnostic data to the second mobile station, and the second mobile station communicates the diagnostic data via a wireless communications network to a remote entity.

17. The mobile diagnostic reporting system of claim 16, wherein the first mobile station, the computer and the second mobile station are integrated together in a single unit.

18. The mobile diagnostic reporting system of claim 17, wherein the single unit is mounted on a vehicle.

19. The mobile diagnostic reporting system of claim 16, further comprising a location-determining mechanism for providing location data indicative of a location of the first mobile station corresponding to the diagnostic data,

wherein the computer obtains the location data from the location-determining mechanism and provides the location data to the second mobile station; and

wherein the second mobile station communicates the location data via the wireless communications network to the remote entity, thereby indicating to the remote entity the location of the first mobile station corresponding to the diagnostic data.

20. The mobile diagnostic reporting system of claim 19, wherein the second mobile station communicates the diagnostic data and location data together to the remote entity.

21. The mobile diagnostic reporting system of claim 20, wherein the second mobile station communicates the diagnostic data and location data via FTP to the remote entity.

22. A plurality of mobile diagnostic reporting systems as claimed in claim 16, wherein all of the mobile diagnostic reporting systems report diagnostic and location data to a common remote entity.

23. The mobile diagnostic reporting system of claim 16, wherein the second mobile station is at least a 3G mobile station.